Complete Summary

GUIDELINE TITLE

The investigation and management of endometriosis.

BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). The investigation and management of endometriosis. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2006 Oct. 14 p. (Green-top guideline; no. 24). [69 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Endometriosis

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Obstetrics and Gynecology
Surgery

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide clinicians with up-to-date information about the diagnosis and treatment of endometriosis, based upon the best available evidence

TARGET POPULATION

Women with endometriosis

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Assessment of symptoms
2. Timing of clinical examination (during menstruation)
3. Laparoscopic visual inspection of the pelvis
4. Transvaginal ultrasound

Management/Treatment

1. Medical treatment of endometriosis-associated pain
    - Hormonal drugs for suppression of ovarian function
    - Levonorgestrel intrauterine system
2. "Add-back (estrogen and progestogen) therapy for prevention of bone mineral density loss while taking a gonadotrophin-releasing hormone (GnRH) agonist
3. Surgical treatment of endometriosis-associated pain: ablation of endometriotic lesions
4. Treatment of endometriosis associated infertility
    - Surgical treatment: ablation of endometriotic lesions plus adhesiolysis
    - Laparoscopic cystectomy for ovarian endometriomas
    - Flushing the fallopian tubes
5. Assisted reproduction in endometriosis
    - Intrauterine insemination (IUI)
    - In vitro fertilisation (IVF)
    - Treatment with a GnRH agonist (prior to IVF)

MAJOR OUTCOMES CONSIDERED

- Sensitivity and specificity of diagnostic tests
- Symptom relief

- Surgical complication rates
- Pregnancy rate
- Adverse effects of drug therapy

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The Cochrane Library (including the Cochrane Database of Systematic Reviews, DARE, and EMBASE), TRIP, Medline, and PubMed (electronic databases) were searched for relevant randomised controlled trials, systematic reviews, and meta-analyses. The search was restricted to articles published in English between January 2000 and April 2006. Recent consensus documents were also studied. The databases were searched using the relevant Medical Subject Heading (MeSH) terms including all sub-headings and this was combined with a keyword search. Main keywords included "endometriosis," "endometriosis, diagnosis," "endometriosis, drug therapy," "endometriosis, complications," "endometriomas," "endometriosis, surgery."

A guideline, *The Diagnosis and Treatment of Endometriosis*, produced by the European Society for Human Reproduction and Embryology (ESHRE) Special Interest Group for Endometriosis and the Endometrium Guideline Development Group, published in 2005, was consulted in producing this guideline. The ESHRE guideline is updated regularly and made available at www.endometriosis.org/guidelines.html with hyperlinks to the supporting evidence and the relevant references and abstracts. The ESHRE guideline was developed without a systematic search of the published literature; it relied instead on existing review journals, such as *Clinical Evidence*.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Ia: Evidence obtained from meta-analyses of randomised controlled trials

Ib: Evidence obtained from at least one randomised controlled trial

IIa: Evidence obtained from at least one well-designed controlled study without randomisation

IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study

III: Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies, and case studies

IV: Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The recommendations were graded according to the level of evidence upon which they were based. The grading scheme used was based on a scheme formulated by the Clinical Outcomes Group of the National Health Service Executive.

Grade A - Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (Evidence levels Ia, Ib)

Grade B - Requires the availability of well controlled clinical studies but no randomised clinical trials on the topic of recommendations. (Evidence levels IIa, IIb, III)

Grade C - Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (Evidence level IV)

COST ANALYSIS

Published cost analyses were reviewed that compared the cost profiles of combined oral contraceptives, danazol, gestrinone, medroxyprogesterone acetate, and gonadotrophin-releasing hormone (GnRH) agonists.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Following discussion in the Guidelines and Audit Committee, each green-top guideline is formally peer reviewed. At the same time the draft guideline is published on the Royal College of Obstetricians and Gynaecologists Web site for further peer review discussion before final publication.

The names of author(s) and nominated peer reviewers are included in the original guideline document.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

In addition to these evidence-based recommendations, the guideline development group also identifies points of best clinical practice in the original guideline document.

Levels of evidence (**Ia-IV**) and grading of recommendations (**A-C**) are defined at the end of the "Major Recommendations" field.

Diagnosis

Which Symptoms are Typically Associated with Endometriosis?

C - Based on clinical and patient experience, endometriosis can cause the following symptoms:

- Severe dysmenorrhoea
- Deep dyspareunia
- Chronic pelvic pain
- Ovulation pain
- Cyclical or perimenstrual symptoms, such as bowel or bladder, with or without abnormal bleeding or pain
- Infertility
- Chronic fatigue
- Syschezia (pain on defaecation).

When in the Menstrual Cycle is Clinical Examination Most Reliable for Diagnostic Purposes?

B - Deeply infiltrating nodules are most reliably detected when clinical examination is performed during menstruation.

Finding pelvic tenderness, a fixed, retroverted uterus, tender uterosacral ligaments, or enlarged ovaries on examination is suggestive of endometriosis. The findings may, however, be normal. The diagnosis is more certain if deeply infiltrating nodules are palpated on the uterosacral ligaments or in the pouch of Douglas and/or visible lesions are seen in the vagina or on the cervix. The detection of nodules is improved by performing the clinical examination during menstruation although patient acceptance may be an issue. (Evidence level III)

What is the "Gold Standard" Diagnostic Test?

B - For a definitive diagnosis of endometriosis, visual inspection of the pelvis at laparoscopy is the gold standard investigation, unless disease is visible in the posterior vaginal fornix or elsewhere.

How Reliable is Imaging for Diagnostic Purposes?

A - Compared with laparoscopy, transvaginal ultrasound (TVS) has limited value in diagnosing peritoneal endometriosis but it is a useful tool both to make and to exclude the diagnosis of an ovarian endometrioma.

How Reliable is Serum CA125 Measurement for Diagnostic Purposes?

A - Serum CA125 levels may be elevated in endometriosis. However, compared with laparoscopy, measuring serum CA125 levels has no value as a diagnostic tool.

Medical Treatment of Endometriosis-Associated Pain

How Effectively Do Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) Treat Endometriosis-Associated Pain?

A - There is inconclusive evidence to show whether NSAIDs (specifically naproxen) are effective in managing pain caused by endometriosis.

How Effectively Do Hormonal Drugs Treat Endometriosis-Associated Pain?

A - Suppression of ovarian function for 6 months reduces endometriosis-associated pain.

B - Symptom recurrence is common following medical treatment of endometriosis.

Is There a Role For the Levonorgestrel Intrauterine System (LNG-IUS)?

A - The LNG-IUS appears to reduce endometriosis-associated pain.

Can Bone Mineral Density Loss While Taking a Gonadotrophin-Releasing Hormone (GnRH) Agonist be Prevented Using "Add-Back" Therapy?

A - The use of a GnRH agonist with "add-back" (oestrogen and progestogen) therapy protects against bone mineral density loss at the lumbar spine during treatment and for up to 6 months after treatment.

Surgical Treatment of Endometriosis-Associated Pain

When Should Surgical Treatment Be Considered?

Depending upon the severity of disease found, ideal practice is to diagnose and remove endometriosis surgically, provided that adequate preoperative consent has been obtained.

Does Surgical Treatment Relieve Pain?

A - Ablation of endometriotic lesions reduces endometriosis-associated pain compared with diagnostic laparoscopy.

Does Nerve Ablation Provide Pain Relief?

A - Laparoscopic uterine nerve ablation by itself does not reduce endometriosis-associated pain.

Is There a Role For Hormonal Treatment Before or After Surgery?

A - There is insufficient evidence of benefit to justify the use of preoperative or postoperative hormonal treatment.

Treatment of Endometriosis-Associated Infertility

Is There a Role For Hormonal Treatment in Endometriosis-Associated Infertility?

A - Suppression of ovarian function to improve fertility in minimal–mild endometriosis is not effective and should not be offered for this indication alone. There is no evidence of its effectiveness in more severe disease.

Does Surgery for Minimal–Mild Disease Improve Pregnancy Rates?

A - Ablation of endometriotic lesions plus adhesiolysis to improve fertility in minimal–mild endometriosis is effective compared with diagnostic laparoscopy alone.

Does Surgery for Moderate–Severe Disease Improve Pregnancy Rates?

B - The role of surgery in improving pregnancy rates for moderate-severe disease is uncertain.

How Should Ovarian Endometriomas be Managed?

A - Laparoscopic cystectomy for ovarian endometriomas is better than drainage and coagulation.

Is There a Role for Hormonal Treatment After Surgery?

A - Postoperative hormonal treatment has no beneficial effect on pregnancy rates after surgery.

Is There a Role for Flushing the Fallopian Tubes?

A - Tubal flushing appears to improve pregnancy rates in women with endometriosis-associated infertility.

Assisted Reproduction in Endometriosis

Does Intrauterine Insemination (IUI) Improve Pregnancy Rates?

A - Treatment with IUI improves fertility in minimal to mild endometriosis.

Is In Vitro Fertilisation (IVF) Indicated?

B - IVF is appropriate treatment, especially if tubal function is compromised, if there is also male factor infertility, and/or other treatments have failed.

Is There a Role for Hormonal Treatment Before IVF?

A - Treatment with a GnRH agonist for 3 to 6 months before IVF in women with endometriosis increases the rate of clinical pregnancy.

Coping with Disease

What is the role for complementary therapies?

C - The role of complementary therapies in relieving endometriosis-associated pain is unclear.

Definitions:

Grading of Recommendations

Grade A - Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (Evidence levels Ia, Ib)

Grade B - Requires the availability of well controlled clinical studies but no randomised clinical trials on the topic of recommendations. (Evidence levels IIa, IIb, III)

Grade C - Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (Evidence level IV)

Levels of Evidence

Ia: Evidence obtained from meta-analyses of randomised controlled trials

Ib: Evidence obtained from at least one randomised controlled trial

IIa: Evidence obtained from at least one well-designed controlled study without randomisation

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IV: Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate management of endometriosis to control pain, increase pregnancy rate, and protect against bone mineral density loss

POTENTIAL HARMS

- Adverse effects of drug therapy
- Diagnostic laparoscopy is associated with an approximately 3% risk of minor complications, such as nausea or shoulder tip pain, and a risk of major complications, such as bowel perforation, vascular damage, of between 0.6/1000 and 1.8/1000.
- Complications of surgery

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- These guidelines are "systematically developed statements which assist clinicians and patients in making decisions about appropriate treatment for specific conditions." Each guideline is systematically developed using a standardised methodology. Exact details of this process can be found in Clinical Governance Advice No. 1: Guidance for the Development of RCOG Green-top Guidelines (See the "Availability of Companion Documents" field in this summary.)
- These recommendations are not intended to dictate an exclusive course of management or treatment. They must be evaluated with reference to individual patient needs, resources and limitations unique to the institution and variations in local populations. It is hoped that this process of local ownership will help to incorporate these guidelines into routine practice. Attention is drawn to areas of clinical uncertainty where further research may be indicated.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). The investigation and management of endometriosis. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2006 Oct. 14 p. (Green-top guideline; no. 24). [69 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Oct

GUIDELINE DEVELOPER(S)

Royal College of Obstetricians and Gynaecologists - Medical Specialty Society

SOURCE(S) OF FUNDING

Royal College of Obstetricians and Gynaecologists

GUIDELINE COMMITTEE

Guidelines and Audit Committee of the Royal College of Obstetricians and Gynaecologists

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Authors: Mr SH Kennedy, MRCOG, Oxford and Miss SJ Moore, MRCOG, Oxford

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Guideline authors are required to complete a "declaration of interests" form.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.

Print copies: Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Bookshop, 27 Sussex Place, Regent's Park, London NW1 4RG; Telephone: +44 020 7772 6276; Fax, +44 020 7772 5991; e-mail: bookshop@rcog.org.uk. A listing and order form are available from the RCOG Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Development of RCOG green-top guidelines: policies and processes. Clinical Governance Advice No 1a. 2006 Nov. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.
- Development of RCOG green-top guidelines: producing a scope. Clinical Governance Advice No 1b. 2006 Nov. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.
- Development of RCOG green-top guidelines: producing a clinical practice guideline. Clinical Governance Advice No 1c. 2006 Nov. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.
- Searching for evidence. Clinical Governance Advice No 3. 2001 Oct. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.

Additionally, auditable standards can be found in section 13 of the original guideline document.

PATIENT RESOURCES

None available

NGC STATUS

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